ABSTRACT

A method for determining time to completion is provided for a battery charging system. The system preferably includes a charger having a microprocessor and a battery with a memory. The memory includes information about the battery, including battery identifiers, charging states,

5   charging procedures and charging termination information. The charger reads this battery and then determines the charging states associated with the battery. The charger then determines the present state of charge, and calculates a time to completion for that state. The charger then determines times to completion for the remaining charge states, optionally compensating for self discharge within the battery. A total time to completion is determined by summing the times to

10   completion for the respective charging states.